



Updated multistate review of professional teaching standards

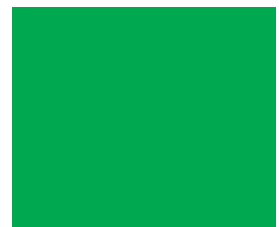
Prepared by

Melissa Eiler White
WestEd

Reino Makkonen
WestEd

Kari Becker Stewart
WestEd

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This review of teaching standards in six states updates a 2009 review (<http://ies.ed.gov/ncee/edlabs/projects/project.asp?projectID=178>) by using California's most recently adopted teaching standards in place of its previous standards.

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Summary

This review of teaching standards in six states updates a 2009 review (White, Makkonen, and Stewart 2009) by incorporating California's recently adopted teaching standards alongside those from Florida, Illinois, North Carolina, Ohio, and Texas. The previous review was developed at the request of key education agencies in California to inform the state's revision of its teaching standards. This review focuses on the structure and target audience of the six states' teaching standards and on selected content.

Three questions guided the research:

- What is the target group of teachers for the teaching standards?
- What is the structure of the teaching standards?
- To what extent do the state teaching standards address instruction of English language learner students, instruction of students with disabilities, use of education technology, and instruction in the context of accountability and student learning standards?

Key findings of the review, which examined each state's teaching standards and supporting documents, include the following:

- Teaching standards in California, Florida, Illinois, North Carolina, and Ohio cover all teachers, from beginning to experienced. Standards in Texas are expressly for beginning teachers.
- California, Illinois, and North Carolina each have one set of teaching standards for all teachers. Florida differentiates its standards by teacher career level (preprofessional, professional, and accomplished) and Ohio by teacher performance level (proficient, accomplished, and distinguished). Texas has 50 sets of teaching standards, generally organized by content area and grade span. However, one of them, the pedagogy and professional responsibilities standards (EC–12), applies to all beginning teachers from early childhood education through grade 12. This set is similar to the other state teaching standards reviewed for this study in content and purpose and thus is the set examined for Texas.
- The professional teaching standards documents reviewed range from 4 pages (North Carolina) to 32 pages (Florida), and the number of teaching standards per document ranges from 4 (Texas) to 12 (Florida).
- Instruction of English language learner students is addressed through the following topics: recognizing or supporting diversity (5 states), differentiating instruction for English language learner students (5 states), knowing language acquisition and other learning theory and strategies (3 states), assessing students' language status and development (3 states), communicating with students and families (2 states), and selecting related materials or curricula (2 states).
- Instruction of students with disabilities is addressed through differentiating instruction (5 states), collaborating with Individualized Education Program teams and other stakeholders (4 states), practicing inclusion of students with disabilities (3 states), knowing

students' rights (3 states), understanding patterns or styles of learning (2 states), identifying students with disabilities (2 states), assessing students with disabilities (2 states), and teacher attitudes and self-assessment (1 state).

- The use of technology in the classroom is addressed by effectively integrating technology into instruction (6 states), using technology to assess student performance (4 states), identifying technology and evaluating its instructional value (4 states), understanding conventions for managing electronic information (3 states), demonstrating competency with an interest in technology (3 states), using assistive technology for students with disabilities (3 states), and collaborating and communicating on the use of technology (2 states).
- Accountability and student learning standards are addressed through knowing and understanding state learning standards (5 states), delivering standards-based instruction (4 states), using learning standards to plan instruction (3 states), and assessing student progress toward meeting the state learning standards (2 states).

The teaching standards reviewed offer options for broad consideration, such as structure and target groups of teachers. They also offer specific details on issue and topic emphasis and language choices. State profiles, available at www.wested.org, include excerpts from the teaching standards documents and are organized by the topics outlined in this overview.

Technical brief

Why this brief?

This study was motivated by a joint request from California's Commission on Teacher Credentialing and the California Department of Education as part of a statewide review of the California Standards for the Teaching Profession. California had appointed an advisory panel to recommend revisions to its teaching standards that would be consistent with current research, the best understanding of effective teaching practices, and California education policies.¹ In preparation for the panel's work, the two organizations requested that Regional Educational Laboratory West prepare an overview of teaching standards in five states, focusing on states that rank among the largest nationally. Two states—North Carolina and Ohio—were selected because of the nature of their teaching standards. The resulting report was published in summer 2009 (White, Makkonen, and Stewart 2009). California then published new teaching standards in fall 2009. This report incorporates those new standards into the multistate comparison. Data sources were the teaching standards themselves and related documents.

Three key questions guided the review of the six state teaching standards documents:

- What is the target group of teachers for the teaching standards?

A state's teaching standards may be intended for all teachers or for specific populations of teachers. In California, for example, the initial motivation for developing state standards was for use in beginning teacher induction programs, though the standards were ultimately written to apply to all teachers, beginning to advanced. In contrast, two sets of well known national standards that have informed teaching standards in some other states are directed at either expert teachers (the standards of the National Board for Professional Teaching Standards) or new teachers

(those of the Interstate New Teacher Assessment and Support Consortium).

- What is the structure of the teaching standards?

Because states have taken different approaches in structuring their teaching standards, the study also examined and summarized approaches across the reviewed standards, hypothesizing that certain structural features, such as scope, length, and terminology, might relate to how standards are used and interpreted. (For example, might busy teachers find it easier to regularly refer to a short teaching standards document? Researchers did not investigate such relationships, but simply examined and described the standards' organizational structure.)

- To what extent do the state teaching standards address instruction of English language learner students, instruction of students with disabilities, use of education technology, and instruction in the context of accountability and student learning standards?

These four issues were identified by California's Commission on Teacher Credentialing, the California Department of Education, and other advisors to California's standards revision process as areas in which changes in context, understanding, and policies (in California and nationally) would be of interest as they revised California teaching standards.

Chief among such changes was passage of the No Child Left Behind Act of 2001, with its focus on education accountability. The act requires states to establish measures of adequate yearly progress for assessing student progress toward the goal of universal proficiency in English language arts and mathematics on state assessments by 2014. The federal law has spotlighted English language learner students and students with disabilities, seeking to ensure that they meet the same challenging academic

content and achievement standards as other students. During 2005/06 U.S. public schools educated approximately 4.2 million English language learner students and 6.7 million students with disabilities. The nearly 1.6 million English language learner students in California accounted for some 37 percent of this national population (and about a quarter of the state's overall K–12 enrollment). That same year California's public schools served close to 700,000 students with disabilities (U.S. Department of Education, National Center for Education Statistics 2008).

The use of education technology has expanded in recent years across the United States. In California the ratio of students per instructional computer fell from 7.2:1 in 2000 to 5:1 in 2006, while the national average ratio fell from 4.9:1 to 3.8:1. In 2005

approximately 44 percent of California students and 50 percent of U.S. students had at least one computer available to them in their classrooms (Editorial Projects in Education Research Center 2009).

Cross-state overview

This study reviewed the following primary teaching standards documents in California and five other states (see box 1 for details on study methods and limitations):

- *California Standards for the Teaching Profession* (California Commission on Teacher Credentialing and California Department of Education 2009).
- *Educator Accomplished Practices: Competencies for Teachers of the 21st Century* (Florida Department of Education n.d.).

BOX 1

Methods for selecting and reviewing states' teaching standards

Selection of states. California's Commission on Teacher Credentialing and the California Department of Education initially requested a review of teaching standards in four large states (Florida, Illinois, New York, and Texas, each among the top 10 in student population; U.S. Department of Education, National Center for Education Statistics 2008). New York was dropped because it had not yet adopted teaching standards, and North Carolina was added on the recommendation of a national teacher induction expert, who thought highly of the state's standards.¹ California's Commission on Teacher Credentialing and the

California Department of Education recommended adding Ohio because its standards are differentiated by level of teaching performance. California's 2009 teaching standards are included for comparison.

Data sources, collection, and analysis. Primary teaching standards documents were identified and reviewed, as were an introduction and a preamble published separately by Florida and Ohio as supporting documentation (Florida Department of Education 2002; Ohio Educator Standards Board 2005) and introductory language on the web site for Texas teaching standards (Texas State Board for Educator Certification 2008). The examination focused on the standards' target group of teachers, structure (scope, length, and terminology), and selected

content (how the standards address particular teaching-related issues).

The target group of teachers and the standards' structure were identified through references in introductions, preambles, or the standards themselves. To establish how the standards address teaching-related issues of interest, standards were investigated to determine whether they explicitly referenced any of the following key terms:

- *English language learner students.* English learners, English language learners, English proficiency, students whose first language is not English, students for whom English is a new language, heritage language, home language, native language, language skills, language

(CONTINUED)

BOX 1 (CONTINUED)

Methods for selecting and reviewing states' teaching standards

development, language acquisition, language proficiency, linguistic background, linguistic development, linguistic heritage, linguistic diversity, and linguistically sensitive.²

- *Students with disabilities.* Special education, special needs, disability, disabilities, and abilities.
- *Education technology.* Technology, technologies, technological tools, technological resources, digital information, computer, computers, software, electronic media, Internet, and intranet.
- *Accountability and student learning standards.* Accountability and standards.³

References were then categorized by topics that researchers identified inductively.⁴ One researcher grouped the references into topics; a second researcher reviewed the groups, flagging questions and suggesting changes in category assignments. The researchers discussed and resolved any concerns. Next, a third researcher, who was independent of the project, conducted a reliability check, coding all references by category and identifying discrepancies.

Researchers resolved discrepancies by assigning final codes based on the action directly described. An individual reference was coded in two categories in a topic area only when

the reference explicitly included two different actions.⁵

Profiles of each state's teaching standards were prepared and used for the cross-state analysis (profiles are available at www.wested.org).

Limitations. The study had several limitations that should be considered in interpreting the results:

- Of the six sets of state teaching standards reviewed, five were purposefully selected based on the interests of the California requestors, and the sixth set, California's, was included for comparison. Different information and models for consideration might have emerged had teaching standards from other states been selected.
- Topics for content analysis were identified through keywords, so references that did not meet the keyword criterion might have been missed. This would be most likely when specific student groups—English language learner students, for example—are implied in references to broad terms, such as “all students.”
- This brief reflects teaching standards documents at the time of the review. States could be planning to revise their standards but had not done so as of the writing of this report.⁶

Notes

1. In preparing for the reviews, researchers consulted Janet Gless, associate director of the New Teacher Center (personal communication, August 4, 2008).
2. In three cases the word *language* was viewed in the context of the sentence and deemed to meet the criterion of explicit reference to English language learner students.
3. When *standards* clearly referred to student content standards rather than professional teaching standards or a generic use of the term, the reference was included in the review. Examples include *content standards*, *performance standards*, *academic content standards for students*, and references to the title of the state learning standards for students, such as the Texas Essential Knowledge and Skills.
4. When references were selected from the standards documents, the complete text of a standard or subelement was counted even if it had two sentences or covered more than one topic (see next note).
5. For example, one Florida topic identified as a technology reference was “professional teacher: Routinely demonstrates a basic level of technology competency and ensures that students have opportunities to attain basic technology literacy skills” (Florida Department of Education n.d., p. 20). This reference was coded in two topics: effectively integrating technology into instruction and demonstrating competency with and interest in technology. Seven references were categorized in two topics within the same general issue (for example, English language learner students), and ten were coded in two different issues (for example, teaching standards approach to using education technology and teaching standards approach to considering accountability and student learning standards) because they met the selection criterion under both terms. Most cross-issue references were in California's updated standards.
6. Illinois is revising its teaching standards, though the new standards expected release is not until summer 2010.

- *Illinois Professional Teaching Standards* (Illinois State Board of Education 2002a).
- *North Carolina Professional Teaching Standards* (North Carolina Professional Teaching Standards Commission 2007).
- *Ohio Standards for the Teaching Profession* (Ohio Educator Standards Board 2006).
- *Approved New Education Standards: Pedagogy and Professional Responsibility Standards* (EC–12) (Texas State Board for Educator Certification n.d.).

All references in this technical brief refer to these documents unless otherwise indicated.

What is the target group of teachers for the teaching standards?

In five of the six states reviewed here, the teaching standards apply to all teachers, beginning to experienced (table 1). The preamble to California’s teaching standards states that the standards “seek to serve and support professional educators in fulfilling their professional roles and responsibilities from pre-service teacher to experienced practitioner” (p. 1). The introduction to Florida’s standards document explains how the standards are differentiated by teacher career levels. The preamble to the Illinois standards states: “We believe that Illinois must strive to ensure excellence in teaching for all students by establishing professional licensing standards and learning opportunities which will enable all teachers to develop and use professional knowledge and skills on behalf of students” (p. 1). The introduction to the North Carolina standards implies that they apply to all teachers as the “basis for teacher preparation, teacher evaluation, and professional development” (p. 1). The introductory language in Ohio’s teaching standards states that they “were developed for use as a guide for teachers as they continually reflect upon and improve their effectiveness as educators throughout all of the stages of their careers” (p. 1).

TABLE 1
Target group of teachers in reviewed teaching standards

State	All teachers	Beginning teachers
California	✓	
Florida	✓	
Illinois	✓	
North Carolina	✓	
Ohio	✓	
Texas		✓

Source: Authors’ analysis based on data from document reviews; see box 1 for details.

Texas is the exception. Its standards are written expressly for beginning teachers. Texas’s teaching standards web site states that its teaching standards are for “beginning educators in an entry-level position” (Texas State Board for Educator Certification 2008).

What is the structure of the teaching standards?

Teaching standards in the six states differ in scope and focus. California, Illinois, and North Carolina each have a single set of teaching standards that applies to all teachers across the career span. Standards in Florida and Ohio also apply to all teachers, but Florida’s standards are grouped and differentiated by teacher career levels (preprofessional, professional, and accomplished; p. 1)² and Ohio’s by teacher performance levels (proficient, accomplished, and distinguished). Texas stands out from the other states. It has 50 sets of standards, generally organized by content area and grade span, but five are categorized more generally as pedagogy and professional responsibilities standards. Four of the five are grade-span specific, but one (EC–12) applies to teachers from early childhood education through grade 12. Because this set is most similar to the California teaching standards in content and purpose, the review of Texas standards focused on this set.

The professional teaching standards documents reviewed for this report range from 4 pages (North Carolina) to 32 pages (Florida) and from 4 standards per document (Texas) to 12 (Florida). The teaching standards documents for California, Illinois, North Carolina, and Ohio begin with introductory language; those for Florida and Texas begin immediately with the standards. Some of the documents refer to the state’s teaching standards using brief titles, such as “Assessment” (Florida and Illinois), whereas others present the standards as statements (California, North Carolina, Ohio, and Texas). For example, North Carolina standard II is “Teachers establish a respectful environment for a diverse population of students” (p. 2).

Each teaching standard is typically followed by statements of the knowledge and skills teachers must have in order to meet the standard. States have different names for these statements, such as *key indicators* (Florida), *elements* (California), *knowledge and performance*

indicators (Illinois), and *teacher knowledge and application* (Texas). This report refers to all of these statements as *indicators*.

To what extent do the state teaching standards address the identified issues of concern?

This section explores how the state teaching standards address the needs of special populations, use of education technology, and instruction in the context of accountability and student learning standards.

Meeting the needs of special populations

The review focused on how state standards addressed two special populations: English language learner students and students with disabilities.

English language learner students. The state teaching standards reviewed here address English language learner students in six key ways (table 2).

TABLE 2
Topic areas among teaching standards related to English language learner students

State	Recognizing or supporting diversity	Differentiating instruction	Selecting materials or curricula	Knowing language acquisition and other learning theory and strategies	Communicating with students and families	Assessing students’ language status and development
California	✓	✓	✓			✓
Florida	✓	✓	✓	✓	✓	✓
Illinois	✓			✓		✓
North Carolina	✓	✓			✓	
Ohio	✓	✓				
Texas		✓		✓		

Note: The table cites only state teaching standards that explicitly refer to “English learners,” “English language learners,” “English proficiency,” “students whose first language is not English,” “students for whom English is a new language,” “heritage language,” “home language,” “native language,” “language skills,” “language development,” “language acquisition,” “language proficiency,” “linguistic background,” “linguistic development,” “linguistic heritage,” “linguistic diversity,” or “linguistically sensitive.” So, for example, although Texas has a specific teaching standard that focuses on diversity, this standard was not cited because none of Texas’s identified English language learner–related standards has such a focus.

Source: Authors’ analysis based on data from document reviews; see box 1 for details.

Recognizing or supporting diversity. Five states include a standard related to recognizing and supporting diversity that references teachers' abilities to draw on diverse backgrounds, including language (California, Florida, Illinois, North Carolina, and Ohio). For example, Illinois's competent teacher³ "understands how students' learning is influenced by individual experiences, talents, and prior learning, as well as language, culture, family, and community values" (p. 4), while in Ohio, "Teachers model respect for students' diverse cultures, language skills and experiences" (p. 9). Florida addresses this issue more extensively, stating, for example, that the preprofessional teacher:

Establishes a comfortable environment which accepts and fosters diversity. The teacher must demonstrate knowledge and awareness of varied cultures and linguistic backgrounds. The teacher creates a climate of openness, inquiry, and support by practicing strategies such as acceptance, tolerance, resolution, and mediation (p. 4).

Differentiating instruction. Five states emphasize differentiating instruction for English language learner students (California, Florida, North Carolina, Ohio, and Texas). For example, an indicator under North Carolina's standard IV ("Teachers facilitate learning for their students") states that "teachers understand the influences that affect individual student learning (development, culture, language proficiency, etc.) and differentiate their instruction accordingly" (p. 3). In Texas the beginning teacher is able to "adapt lessons to address students' varied backgrounds, skills, interests, and learning needs, including the needs of English language learners" (p. 2).

Selecting materials or curricula. California and Florida were the only states reviewed whose standards include indicators that specifically

attend to students' status as English language learners through instructional material or curriculum selection and development. Florida's preprofessional teacher "selects appropriate culturally and linguistically sensitive materials for use in the learning process" (p. 4), while its accomplished teacher "develops instructional curriculum with attention to . . . first and second language acquisition processes" (p. 26). In California teachers are advised to "select materials, resources, and technologies to support the learning needs of English learners" (p. 13).

Knowing language acquisition and other learning theory and strategies. Although the state teaching standards reviewed here do not reference specific theories, standards for three states (Florida, Illinois, and Texas) mention keeping abreast of new knowledge on teaching English language learner students. For example, Florida's professional teacher "is informed about developments in instructional methodology, learning theories, second language acquisition theories, psychological and sociological trends, and subject matter in order to facilitate learning" (p. 13). Illinois's competent teacher "understands the process of second language acquisition and strategies to support the learning of students whose first language is not English" (p. 4).

Communicating with students and families. Two state teaching standards address English language learner issues by emphasizing the ability to communicate with students and their families for whom English is not the first language (Florida and North Carolina). Florida's preprofessional teacher "identifies communication techniques for use with colleagues, school/community specialists, administrators, and families, including families whose home language is not English" (p. 2). And in North Carolina's standards, teachers are "perceptive listeners and are able to communicate with students in a variety of ways even when language is a barrier" (p. 4).

Assessing students' language status and development. The teaching standards in California, Florida, and Illinois address the assessment of students' language status and development. California advises its teachers to “use assessment results to plan instruction to support English learners” (p. 14), while Florida's standards refer to professional and accomplished teachers using assessment data to determine the “language development progress” of incoming students (pp. 11, 21). Illinois's standards are more explicit, stating that the competent teacher “uses assessment strategies and devices which are nondiscriminatory and take into consideration the impact of disabilities, methods of communication, cultural background, and primary language on measuring knowledge and performance of students” (p. 8).

Students with disabilities. All of the reviewed state teaching standards consider the instruction of students with disabilities. Table 3 summarizes the topics that are addressed in the indicators identified for this review.

The Illinois teaching standards offer the most extensive guidance. Each of the 11 Illinois

professional teaching standards includes knowledge and performance indicators related to students with disabilities, and these indicators cover all the topics in table 3. One topic, teacher attitudes and self-assessment, is unique to the Illinois standards. The competent teacher in Illinois understands the “attitudes and behaviors that positively or negatively influence behavior of students with disabilities” (p. 9), is committed “to developing the highest educational and quality-of-life potential” of these students (p. 10), and “assesses his or her own needs for knowledge and skills related to teaching students with disabilities” (p. 9).

California joins Illinois as one of only two states in this review to focus on assessing students with disabilities. In Illinois the competent teacher not only knows “methods for monitoring progress of individuals with disabilities” but also considers “the impact of disabilities . . . on measuring knowledge” and knows the “guidelines regarding assessment [and inclusion in statewide assessments] of individuals with disabilities” (p. 8). Less specifically, California advises its teachers to both “monitor the learning of” (p. 6) and “build [their own]

TABLE 3

Topic areas among teaching standards related to students with disabilities

State	Teacher attitudes and self assessment	Assessing students with disabilities	Under standing patterns or styles of learning	Identifying students with disabilities	Practicing inclusion of students with disabilities	Differen tiating instruction	Collaborating with Individual ized Education Program teams and other stakeholders	Knowing students' rights ^a
California		✓				✓		
Florida						✓		
Illinois	✓	✓	✓	✓	✓	✓	✓	✓
North Carolina					✓	✓	✓	
Ohio				✓		✓	✓	✓
Texas			✓		✓		✓	✓

Note: The table cites state teacher standards that explicitly refer to “special education,” “special needs,” “disability,” “disabilities,” or “abilities.”

a. Includes rights guaranteed by state and federal law and also other guidelines, policies, and safeguards to ensure equitable treatment of students with disabilities.

Source: Authors' analysis based on data from document reviews; see box 1 for details.

understanding of” (p. 10) their students with special needs.

Illinois and Texas have teaching standards that address patterns or styles of learning among students with disabilities. In Illinois, for example, the competent teacher knows “how a student’s disability affects processes of inquiry” (p. 3) as well as the impact of “cognitive, emotional, physical, and sensory disabilities on learning and communication processes” (p. 4). Similarly, the beginning teacher in Texas knows and understands “physical accessibility as a potential issue in student learning” (p. 9).

The Illinois and Ohio teaching standards stand alone in their focus on identifying students with disabilities. Ohio’s teachers “recognize characteristics” of students with disabilities “in order to assist in appropriate identification, instruction, and intervention” (p. 10). In Illinois the competent teacher “knows identification and referral procedures” for these students (p. 10).

The remaining topics listed in table 3—practicing inclusion, differentiating instruction, collaborating with Individualized Education Program teams and other stakeholders, and knowing students’ rights—were each addressed in three to five of the state standards reviewed. Selected examples of the state teaching standards on these topics include:

- *Practicing inclusion of students with disabilities.* Beginning teachers in Texas are able to “create a safe and inclusive classroom environment” (p. 9), while North Carolina teachers engage students with special needs “through inclusion and other models of effective practice” (p. 2).
- *Differentiating instruction.* Ohio’s teachers “differentiate instruction to support the learning needs of all students, including . . . students with disabilities” (p. 20). North Carolina’s teachers “adapt their teaching for the benefit of students with special needs” (p. 2).
- *Collaborating with Individualized Education Program teams and other stakeholders.* North Carolina teachers “collaborate with the range of support specialists to help meet the special needs of all students” (p. 2), while the competent teacher in Illinois “knows the roles and responsibilities of teachers, parents, students, and other professionals related to special education” (p. 10) and “collaborates in the development of comprehensive [Individualized Education Programs] for students with disabilities” (p. 9).
- *Knowing student’s rights.* Texas’s beginning teachers know and understand “legal requirements . . . related to special education, students’ and families’ rights, student discipline, [and] equity” (p. 16). In Illinois the competent teacher “knows applicable laws, rules, and regulations, procedural safeguards, and ethical considerations regarding planning and implementing behavioral change programs for individuals with disabilities” (p. 6).

Using education technology

Teacher use of technology is explicitly addressed in all the teaching standards reviewed for this study (table 4). Three states stand out as having more extensive content related to the use of technology. Florida’s technology teaching standard lists key sample indicators for each of the state’s three teaching levels, and Illinois and Texas have separate sets of standards on classroom technology (Illinois State Board of Education 2002b; Texas State Board for Education Certification 2003), in addition to the technology-related references in their main teaching standards documents.

Standards in California, Florida, Illinois, and Texas all touch on the following topics related to classroom technology: identifying technology and evaluating its instructional

TABLE 4

Topic areas among teaching standards related to education technology

State	Identifying technology and evaluating its instructional value	Effectively integrating technology into instruction	Understanding conventions for managing electronic information	Using technology to assess student performance	Demonstrating competency with an interest in technology	Collaborating and communicating on the use of technology	Using assistive technology for students
California	✓	✓		✓	✓		✓
Florida	✓	✓	✓	✓	✓	✓	✓
Illinois	✓	✓	✓	✓	✓		✓
North Carolina		✓					
Ohio		✓				✓	
Texas	✓	✓	✓	✓			

Note: The table cites state teaching standards that explicitly refer to “technology,” “technologies,” “technological tools,” “technological resources,” “digital information,” “computer,” “computers,” “software,” “electronic media,” “Internet,” or “intranet.”

Source: Authors’ analysis based on data from document reviews; see box 1 for details.

value, effectively integrating technology into instruction, and using technology to assess student performance. Florida, Illinois, and Texas also focus on teachers’ understanding of conventions for managing electronic information.

In addition, teaching standards in California, Florida, and Illinois address teachers’ technological competency. For example, California asks its teachers to expand their “knowledge and effective application of new instructional methods and technologies” (p. 16), while the professional teacher in Florida “routinely demonstrates a basic level of technology competency” (p. 20).

Florida and Ohio teaching standards address a topic not mentioned in any other standards in this review: collaborating and communicating on the use of technology. For example, Florida’s preprofessional teacher “uses technology to collaborate with others” (p. 10), while the professional teacher “participates in collaboration via technology to support learning” (p. 20). Ohio’s standard 4 expects distinguished teachers to “help their colleagues understand and integrate technology into instruction” (p. 21).

Similarly, California, Florida, and Illinois are the only reviewed states that focus on the use of assistive technology for students who need such support. The professional teacher in Florida “uses accessible and assistive technology to provide curriculum access to those students who need additional support” (p. 20), while the Illinois teaching standards state that the competent teacher uses “adaptive devices/technology to provide access to general curricular content to individuals with disabilities” (p. 3). In California teachers “use appropriate assistive equipment and other technologies to support students’ diverse learning needs” (p. 5).

Overall, the teaching standards in North Carolina and Ohio address education technology more narrowly than do the standards in the other states. With the exception of Ohio’s already noted reference to collaboration, these two states focus primarily on effectively integrating technology in the classroom (a topic also addressed by the other states in the review). For example, North Carolina’s standard IV states that teachers “integrate and utilize technology in their instruction . . . to maximize student learning” and also “help students use technology to learn content, think critically,

solve problems, discern reliability, use information . . . [and] innovate” (p. 4). Ohio’s standard 4 expects the state’s accomplished teachers to “develop students’ abilities to access, evaluate, and use technology” (p. 21).

Considering accountability and student learning standards

Three of the six sets of state teaching standards reviewed here (Florida, Illinois, and Texas) were originally conceptualized in the late 1990s as part of a shift toward standards-based education that included implementation of statewide systems of student content standards and assessments. (California’s earlier 1997 teaching standards were also developed in that period.) Thus, teaching standards in these states tend to complement student learning standards within the state’s accountability system. In Texas, where the teaching standards are more content area–specific and aligned with student learning standards, the two types of standards have consistently been revised together to ensure that alignment.

All six states include in their teaching standards some reference to their learning standards for students (table 5). These references most commonly emphasize teachers’ knowledge and understanding of the learning standards. For example, California teachers are encouraged to

“exhibit in-depth working knowledge of subject matter, academic content standards, and curriculum frameworks” (p. 9), while Texas’s pedagogy and professional responsibility teaching standards (EC–12) insist that the beginning teacher know and understand the “importance of the state content and performance standards” (p. 3). In addition, the teaching standards in three of the states reviewed (California, North Carolina, and Texas) emphasize using student learning standards to plan instruction. California teachers “plan lessons and units that promote access to academic content standards for all students” (p. 12), while beginning teachers in Texas “use the Texas Essential Knowledge and Skills (TEKS) to plan instruction” (p. 3).

The teaching standards in four of the states reviewed focus on delivering standards-based instruction (see table 5). Specifically, the professional teacher in Florida “provides comprehensible instruction based on performance standards required of students in Florida public schools” (p. 18), while Ohio expects its accomplished teachers to “extend and enrich curriculum by integrating school and district curriculum priorities with Ohio’s academic content standards and national content standards” (p. 13).

Only two of the states reviewed (Florida and Illinois) address teachers’ ability to assess

TABLE 5
Topic areas among teacher standards related to accountability and student learning standards

State	Knowing and understanding standards	Using standards to plan instruction	Delivering standards based instruction	Assessing students’ progress on standards
California	✓	✓	✓	
Florida			✓	✓
Illinois	✓			✓
North Carolina	✓	✓	✓	
Ohio	✓		✓	
Texas	✓	✓		

Note: The table cites state teaching standards that explicitly refer to “accountability” or “standards.”

Source: Authors’ analysis based on data from document reviews; see box 1 for details.

students' progress toward meeting the state learning standards. For example, Florida has its accomplished teachers communicate with students "to assess the relevance of the curriculum and adequacy of student progress toward standards" (p. 22). And the competent teacher in Illinois "understands assessment as a means of evaluating . . . what [students] know and are able to do in meeting the Illinois Academic Standards, and what kinds of experiences will support their further growth and development" (p. 8).

Conclusion

Each of the six states whose standards were reviewed has taken a distinctive approach to the design of its teaching standards, and each set of standards may offer different insights to the people involved in developing and supporting teaching standards in other states. For example, the differentiation of teaching standards by career levels in Florida and by performance level in Ohio might interest states that do not differentiate teaching standards in this way. North Carolina's succinct teaching standards—just four pages—offer another model. Texas has 50 sets of teaching standards that, for the most part, align with content areas and grade spans.

Analysis of these states' approaches to the issues selected for this review revealed similarities and differences across states. Florida has the longest set of standards, and the standards cover the greatest number of topics related to English language learner students and education technology. Teaching standards in Illinois cover the greatest number of topics related to students with disabilities. On accountability and student learning standards no one state stood out for the breadth of attention to these topics; rather, all the states focused on a small set of related topics.

In each issue area certain topics stood out because they are addressed most frequently by the six states. Instruction of English language

learner students is addressed by four or more states through the recognition or support of diversity and the differentiation of instruction for English language learner students. Instruction of students with disabilities is most commonly addressed through references to differentiated instruction and collaboration with Individualized Education Program teams and other stakeholders. The use of technology in the classroom is addressed most frequently through identifying appropriate technology and then effectively integrating it into instruction and using it to assess students. Finally, the two topics related to accountability and student learning standards addressed by a majority of the states were teachers knowing and understanding their state learning standards and delivering standards-based instruction.

Collectively, the six sets of state teaching standards reviewed offer various options for broad consideration, such as their structure and the target group of teachers. They also offer details on issues and topics emphasized and language choices. Individual state profiles (available at www.wested.org) include extensive excerpts from the teaching standards documents. The excerpts are generally organized according to the issues and topics outlined in this overview.

Notes

1. California Education Code section 44279.2(a)(7) specifies this process for periodically evaluating the validity of the *California Standards for the Teaching Profession* (California's Commission on Teacher Credentialing and the California Department of Education 1997).
2. An overview of Florida's *Educator Accomplished Practices* states: "The first benchmark is called 'preprofessional' and refers to what the State expects teachers who have just received their teaching degree to know and be able

to do. . . . The other two benchmarks [are] ‘professional’ (teachers who have received their first five-year permanent certificate) and ‘accomplished’ (outstanding teachers)” (Florida Department of Education 2002, p. 1).

3. Although Illinois does not differentiate its teaching levels, all of its knowledge and performance indicators begin with the phrase “The competent teacher.”

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